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# Dissemination of farm market news and its importance in decision-making

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# **Dissemination of Farm Market News and Its Importance In Decision-Making**

by Joe M. Bohlen and George M. Beal

Department of Sociology

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**IOWA AGRICULTURE AND HOME ECONOMICS EXPERIMENT STATION  
IOWA STATE UNIVERSITY of Science and Technology**

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## SUMMARY

This study seeks to determine the sources of market news used by Iowa farmers, particularly radio reports. It examines farmers' preferences concerning market reports and the extent to which radio farm news is being used. Finally, it analyzes suggestions of farmers on how market news reports may be improved.

Twenty-one farm couples were selected by a random sampling procedure from each of seven Iowa counties (Adair, Bremer, Carroll, Keokuk, Marshall, Palo Alto and Wright). They were interviewed for information concerning the farm market news they receive and its value to them in making farming decisions. These 147 families were contacted twice during the last part of March and the first part of April 1961. On the initial visit, they were provided with information log forms (charts) and asked to keep an accurate record of all their radio listening and television viewing during the predetermined 2-day period. The second visit to the farm was made immediately after the 2-day recording period. On this second visit, detailed, separate interview schedules were administered to the farmer and his wife, and their radio-listening and television-viewing charts were collected.

To be included in the sample the families had to have at least one radio and farm 40 acres or more. Of those involved in the study, nearly 75% had one or two radios, and some had as many as six radios. Most of the sample families, 96.6%, had radios in their houses, although 34% also had radios in autos or pick-up trucks, and 15.6% had radios in their barn, garage or shop.

Even though both the farmers and their wives were interviewed, this report pertains only to the information obtained from the 147 farmers.

Radio listening for the sample of farmers averaged 1 hour and 58 minutes per day. Listening varied by days of week, being highest on Tuesday and Friday and lowest on Saturday, Sunday and Monday.

The three major listening times were during the noon hour, early morning between 6:00 and 8:00 and to some degree, the evening around 6:00.

Most of the families sampled, 95.9%, had television sets. Farmers watched television an average of 2 hours and 30 minutes per day. Most of the TV listening was done in the evening. Television-viewing patterns during the evening were similar for all days of the week. Between 8 and 9 p.m., television viewing hit a peak of more than 50% of the potential sample audience.

Daytime TV-viewing patterns showed some variation by day of the week. On week days, viewing began at 7 a.m. and gradually built up to a high of approximately 17% of the potential number by noon.

Viewing dropped sharply after the noon hour, varying from 2 to 4% throughout the afternoon.

On Saturday and Sunday, viewing did not begin until about 9:30 a.m. and was minimal until noon. On Saturday, viewing rose to only 8% by the noon hour, dropping to zero by 3 p.m. and remaining there until late afternoon. On Sunday, viewing climbed to 18% at noon, hovered around 10 to 12% in the early afternoon and then began climbing sharply about 4:45 p.m.

Only a slight variation was noted between weekend and week night viewing from 6 to 9 p.m. Viewing patterns after 9 p.m. were virtually identical for all days.

A greater amount of daily television viewing recorded on Sunday, Monday and Thursday tended to offset the lesser amount of radio listening on those days. Thus, it might be hypothesized that farmers' major leisure-time activity is watching television or listening to radio and that a given amount of time is allocated each day to such activity. Thus, if a farmer listened to radio more on a given day, he would have less time to watch television.

Only a small percentage of farmers either watched television or listened to radio during the afternoon.

Radio listening was done predominantly during the early hours, 6 to 8:30 a.m., and during the noon hour. Television viewing was limited mostly to the evening hours between 6 and 10:30 p.m.

The drop in radio listening between 6:30 and 9 p.m. was offset by increased television viewing during the same period. Thus, it seems that farmers turned off their radios and viewed television during the evening hours.

There was almost no radio listening between 8 and 10 p.m. among families with television sets in operating condition.

After 12:15 a.m. at night, none of the farmers interviewed listened to radio or watched television.

Virtually all the 147 sample families, 98% or more, were receiving one or more newspapers and other publications, such as magazines, farm papers and journals, in their home regularly.

Almost all the sample farmers, 95.9%, said they listened to radio farm market broadcasts; 58.5% read newspapers for market news; 42.9% watched television for such news; 22.4% obtained market news from magazines and journals; and 18.4% from buyers.

Approximately half, 51.7%, of the sample farmers listed news broadcasts as the type of program they would miss most if they had to do without radio; 29.3% said they would miss market reports most; 10.2% said they would miss weather reports most; and 4.1% said they would miss music most.

October through March were the most popular months for listening to radio farm market news. April, May and September tended to be "transition" months in radio listening for farm market information. According to the farmers' responses, listening tends to drop off during the spring months of April and May and to pick up in September. June, July and August were low months in reported radio market listening; 16% of the farmers reported that they do not listen at all during these months.

Six of every 10 farmers said they depend on their wives to listen to the radio for farm reports when they are unable to do so.

The farmers preferred an average of two daily farm market broadcasts a day. However, this varied among the farmers, with 27.2% preferring one broadcast, 44.9% preferring two and 20.4% preferring three broadcasts.

The largest percentage of farmers, 60.5%, said they prefer to hear a farm market broadcast beginning at 12:00 noon; 14.3% wanted a mid-morning broadcast beginning at 9:30; 11.6% wanted a 6 a.m. broadcast; and 10% wanted a 6 p.m. broadcast.

The farmers said they would like an average of about four market aspects included in each broadcast.\* Specific information on hogs, cattle and grain were desired by the largest number of the farmers interviewed. Slightly over 36% wanted to hear a report on the hog opening at interior Iowa and southern Minnesota packing plants; 27.2% wanted to hear current cattle market reports at midwestern terminal markets; 26% wanted a report of the grain futures opening at Chicago.

The farmers in the study most often mentioned timeliness of the reports as the reason they listened to market reports most frequently from a particular radio station. Other reasons often mentioned were local appeal, and the content, accuracy and completeness of information.

\* A Market aspect as we use the term, is the smallest interrelated bit of data broadcast. Some examples are "opening bids on hogs on interior Iowa markets" and "closing fat cattle prices at Chicago." See appendix B for further explanation.

They also were asked how radio market reports could be improved to better fit their needs. In reply, the farmers mentioned timeliness, market report content (including accuracy and completeness of information), station reception and personality aspects as the main areas in which improvements can be made.

Only 10.6% of the farmers interviewed reported that they ever write down, graph or chart any part of farm market reports they hear on radio.

However, even though few farmers reported that they record radio farm market information, many said such reports help them in making other decisions.

Approximately 70% of those who listed hogs or cattle as their major source or second largest source of farm income said radio farm market reports help them decide *when* to sell.

Well over half these hog and cattle farmers said radio market reports help them decide what price to accept, whether the price received is acceptable and what market weights to shoot for. From 32% to 42% of these farmers said radio farm market reports help them decide where to sell their commodities; less than half of them said such reports help them in other decisions considered in the study.

More than half the farmers whose major or second most important source of income was grain or beans reported they used radio market reports to decide whether the price received is acceptable. Less than half these grain and bean farmers said they used radio market reports in making other decisions.

Only slightly more than one-third of those farmers whose most important source or second most important source of income was milk, eggs or corn said they used radio market reports in making any of the other decisions considered in the study.

Regardless of the source of income, however, a high proportion of farmers reported that radio market reports helped them develop personal knowledge of markets and market trends—and helped them keep informed about the current market situation, a topic that frequently comes up in discussions with friends and neighbors.



# The Dissemination of Farm Market News and Its Importance in Decision-Making

by Joe M. Bohlen and George M. Beal

Effectively communicating new information to potential users is a major challenge in a rapidly changing economy. For a long time the process of getting timely, accurate, understandable and complete market news to farmers has been of major concern to many persons. In making major decisions (pricing and selling), farmers must rely on the information they can obtain. Consequently, there is a continual need for objective evaluation of the adequacy of information farmers receive and use.<sup>2</sup>

Previous surveys have shown that most farmers receive some kind of market news information and that radio generally is a major information source. Radio's influence on behavior patterns of farm people concerns many persons—administrators of land-grant universities, radio station personnel and others trying more efficiently to "reach" the farm segment of the population. Moreover, interest in radio's influence on behavior seems to have intensified during recent years, especially as other information sources have made more demands on the farmer's time.<sup>3</sup>

Beginning in 1915, information on current and short-term supply, demand and price movements of farm products was provided by the U.S. Department of Agriculture through its Market News Service.<sup>4</sup> Some private concerns in large cities gathered and published data on receipts and prices of farm products before this date, but these data were inadequate and limited in scope. Also, there are indications that the situation didn't satisfy farmers or anyone else. Farmers were quite aware of their lack of contact with urban centers and other places where farm prices were established. They often suspected that the information they received about farm market prices was not trustworthy. For many decades they sought more and better market news and insisted that the information be unbiased, current and reliable.<sup>5</sup> By the 1930's radio had become a major

communication medium for disseminating farm market reports and also an important factor in eliminating the physical and cultural isolation of rural people.<sup>6</sup>

Farmers of today have an opportunity to be better informed about current farm marketing conditions than ever before. In 1960, 96.9% of Iowa farms had at least one radio, and 95% had television sets.<sup>7</sup> In addition, farm market news was being broadcast from slightly more radio and television stations than ever before, and more stations were featuring market news on a daily basis.<sup>8</sup> Concurrently, other mass communications media were playing an important role in disseminating market news to farmers.<sup>9</sup>

Despite the gain in the total number of stations broadcasting market news, many stations were not carrying reports on as many commodities at the time of the survey as they had been carrying during previous times. This finding points to a growing tendency on the part of market newscasters to feature shorter reports, mostly devoted to commodities of special interest in the station's particular area of coverage.<sup>10</sup>

In addition to obvious functions, farm market news has some hidden functions, as a recent study indicates.<sup>11</sup> Various surveys have shown that most farmers receive some kind of farm market news. But, at the same time, many do not use the data in making decisions concerning short- and long-range farming activity.

## THE PROBLEM

Much of the available data concerning sources of farm market news, farmers' actual radio-listening and television-viewing patterns and their perceptions of market news broadcasts were collected before rural

<sup>1</sup> The authors are Professors of Sociology at Iowa State University. The data for this study were gathered by the Rural Sociology Research Team of which the authors are co-leaders. Project 1320 of the Iowa Agr. and Home Econ. Exp. Sta. L. F. Kasperbauer was responsible for assembling the data from which this report was written.

<sup>2</sup> John O. Gerald. Uses of marketing information by farmers in Michigan. Agr. Marketing Serv., U. S. Dept. Agr. AMS 418. 1960, p. 5.

<sup>3</sup> G. M. Beal, J. M. Bohlen and L. F. Kasperbauer. Radio and the farmer with special emphasis on the impact of radio advertising on purchasing behavior. (Mimeo.) Department of Sociology. Iowa State University, Ames. 1962.

<sup>4</sup> Robert C. Bealer. Some latent functions of market news information. Paper presented to the annual Rural Sociological Society meeting, Washington, D.C. August 28-31, 1962.

<sup>5</sup> Agricultural Marketing Service, USDA. Major statistical series of the USDA. Vol. 10. Agr. Handbook 118. 1960.

<sup>6</sup> Edmund de S. Brunner. Radio and the farmer. The Radio Institute of the Audible Arts, New York. 1939, p. 11.

<sup>7</sup> U.S. Dept. of Commerce. U.S. census of housing, 1960, HC (1) No. 17, Iowa, p. 10.

<sup>8</sup> Agricultural Marketing Service, USDA. Major statistical series of the USDA. Vol. 10. Agr. Handbook 118. 1960, p. 1.

<sup>9</sup> See such studies as: George M. Beal and Joe M. Bohlen. The diffusion process. Iowa Coop. Ext. Serv. Spec. Rept. 18. 1957; Alvin L. Bertrand and Homer L. Hitt. Radio habits in rural Louisiana. Louisiana Agr. Exp. Sta. Bul. 440. 1949; J. Parry Dodds and K. R. Marvin. What does the Iowa farmer want from radio market news? Iowa Agr. Exp. Sta. Res. Bul. 413. 1954; J. Parry Dodds and K. R. Marvin. How do Iowa farmers obtain and use market news? Iowa Agr. Exp. Sta. Res. Bul. 417. 1954; Francis B. McCormick. An analysis of the market news service in Ohio. Ohio Agr. Exp. Sta. Res. Bul. 744. 1954; Joel Smith. Dealers, truckers and route drivers as market news sources. Mich. Agr. Exp. Sta. Quart. Bul. Nov. 1959; Herbert F. Lionberger and Edward Hassinger. Roads to knowledge. Missouri Agr. Exp. Sta. Bul. 633. 1954.

<sup>10</sup> Agricultural Marketing Service. Survey of radio and television market news broadcasts. Agr. Marketing Serv., U.S. Dept. Agr. AMS 29 (1960).

<sup>11</sup> Robert C. Bealer. op. cit.



people had access to television. Thus, research is needed to get an up-to-date picture of market news disseminated and received by farmers and also its use in making short- and long-range farming decisions. The purpose of the present investigation was to study the dissemination of farm market news and its use by a sample of farmers representing the male adult farm population of seven Iowa counties.

Since this survey was concerned primarily with farmers, it did not attempt to ascertain the use made of market reports by first handlers of farm products and others who receive farm products.

## OBJECTIVES

The researchers sought to accomplish four objectives: (1) to inventory the sources of farm market news available to Iowa farmers (with emphasis on radio reports), (2) to determine farmers' preferences concerning farm market reports, (3) to determine the extent to which radio farm market news is being used by Iowa farmers and (4) to obtain from producers some suggestions as to how the market news may be improved.

Data from this investigation should be useful to administrators as well as those who gather, process, distribute and use farm market news.

## METHODS AND PROCEDURES

The basic data in this report were obtained from personal interviews with Iowa farmers. Other information was summarized from radio-listening and TV-viewing charts (diaries) on which each farmer recorded his listening and viewing patterns for a 2-day continuous period. The interviewing was done during late March and early April 1961.

Farm couples were interviewed in seven counties<sup>12</sup> purposively selected on the basis of these criteria:

First, the county must be within the primary listening zone of the educational radio station (WOI) located on the campus of Iowa State University, Ames, Iowa. This criterion eliminated the outside tiers of counties.

Second, a county was selected from each of the major economic areas of the state.

Third, the presence or absence of a "local" radio station in the county was taken into consideration. Of the counties selected, three had radio stations with programming primarily oriented to meet the needs of the specific counties in which they were located. Each of the seven counties were, however, within the primary listening zone of at least one "regional" and a "state-wide" station.

The seven counties sampled are shown bordered with heavy lines in fig. 1. The town location of all

Iowa AM radio stations in operation at the time of the survey also is shown.

Twenty-one farm families were selected from each of the seven counties by random sampling procedures. The fixed number of 21 families selected from each county tended, in general, to represent about the same percentage of the total farms in each of the sample counties.

To be included in the sample, the farm family had to consist of at least a farmer and his wife living together in the farm home and operating 40 acres or more. Also, there had to be a radio receiver on the farm, although this could be in the house, outside buildings, automobile or truck, or on tractors.

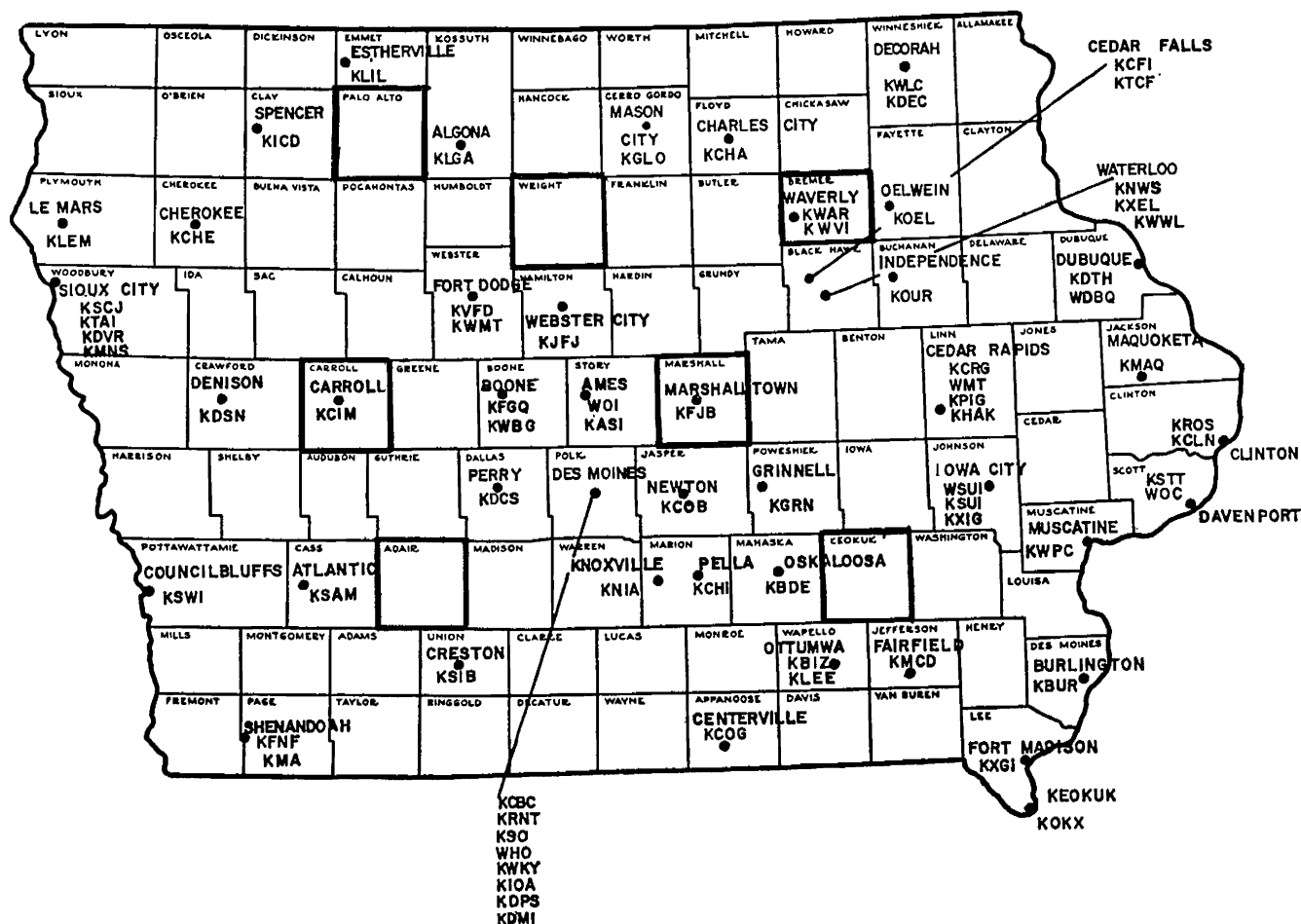
When compared on personal and economic criteria, the average (mean) of the farmers studied seemed quite similar to the average of all farmers in the seven counties investigated as well as to the average of all Iowa farmers operating 40 acres or more. Data from the 1959 Iowa Census were used in making the comparisons.

Some of the deviations that appear in the comparison of the sample with the population were no doubt a result of the dynamic farming situation of the past few years. For example, the average farm size has continued to increase rapidly, and there had been a reduction in the number of "smaller" farms generally limited to certain crop and livestock programs. Also, market prices of farm products have fluctuated, and there have been yearly increases or decreases of as much as 6 to 10% in the size of various crop and livestock enterprises.

Averages (means) of selected characteristics of the entire sample indicated that the "typical" farmer was 46 years old and had slightly more than 10 years of education. His farm was about 227 acres, and the probabilities that his tenure status would be that of full owner, part owner or tenant were roughly 37%, 21% and 42%, respectively. The "typical" farmer had a corn-hog farming operation. In 1960, the farmers interviewed had an average of 97 acres planted to corn, and 84% raised and sold an average of 180 head of hogs. Those who had cattle, 60%, sold an average of 44 head. A similar percentage of the farmers, 65%, kept chickens for laying purposes and had an average of 285 birds. More than half the farmers, 54%, raised an average of 40 acres of soybeans. Milk cows were on only 42% of the farms, but herds averaged slightly over 14 head. Only 16% raised sheep, selling an average of 76 head. Dollar value of all products sold from the farms averaged \$14,000 for 1960. This figure was also very similar to gross farm income for all farmers in Iowa the same year. Of the farmers in the sample, 85% were quite certain that they would be farming in 5 years.

The actual interviewing procedure involved a two-stage process. The first stage consisted of contacting farm families to determine whether they qualified on

<sup>12</sup> Adair, Bremer, Carroll, Keokuk, Marshall, Palo Alto and Wright.



**Fig. 1. Counties in which farmers were interview and location of AM radio stations, 1961.**

the criteria mentioned earlier. If they qualified, they were asked to cooperate by keeping an accurate record of all their radio listening and television viewing. A chart was provided for each radio and television set to minimize the work involved. On these charts, the farm family was asked to identify each member of the family who listened to radio or watched television programs, the stations to which they were tuned and the specific times the listening or viewing was done. These records were kept by 15-minute intervals during the 2-day recording period.

The interviewing process was structured so that three of the 21 farm families in a given county had the same 2-day period to record the information. Three families recorded data on a Monday and Tuesday, three families recorded on Tuesday and Wednesday, three on Wednesday and Thursday, and so forth, throughout the week. This procedure allowed for a total of six farm families in a given county to be recording this information on any given day. Thus, with each of the 147 sample farmers recording information on two days, there were 42 reports for each day of the week.

The initial contact or first stage in data collection was concluded by agreeing upon a time for the interviewer to return to the farm. On the return visit, the second stage of the process, detailed and separate interview schedules were administered to each farmer and his wife. Also, at this time, the radio-listening and television-viewing charts were collected.

The radio and television charts were then analyzed and the specific days and times programs were heard or viewed on a given station were determined. A form containing these dates and times was sent to the managers of the radio stations involved along with a request for them to indicate on the form the titles of the programs broadcast during the specified time periods. In addition, a list of program types was included, and the station managers were asked to identify each program by type. Similar information for television was obtained upon analysis of microfilm containing each station's daily schedule as published in the newspaper.

Although information was obtained from both the farmers and their wives, this report pertains only to the data received from the farmers.

## MEDIA USED BY FARMERS TO RECEIVE FARM MARKET NEWS

Farm market news may usually be obtained on a daily basis through such communications media as radio, television, telephone and newspaper. In addition, farm papers and farm magazines provide such news on a less frequent basis.

However, the emphasis of this study is on radio, which farmers have most frequently mentioned as the source of their farm market news. The distribution of radio receivers among sample members and radio-listening patterns will be examined first.

### Radio

#### Number of Radio Receivers

To be included in the sample, farm families had to have at least one radio. The 147 sample farm families had 302 radios, or an average (mean) of 2.05 per family. The range was 1 to 6 radios per family, though nearly 75% had one or two radios per family (table 1).

#### Location of Radio Receivers

*In houses:*<sup>13</sup> Most of the radio receivers (including transistors) were located in houses. Thus, 98.6% of the sample families, or 145, had an aggregate of 200 radios in their houses. The range was 1 to 4 radios per house. The other 1.4% of the families did own radios, but did not have them in a house. One family had one radio in an automobile and one in the barn. The second family had only one radio, located in the barn.

*In autos and pickup trucks:* Fifty families, or 34.0% of the sample, had an aggregate of 55 radios in autos or pickup trucks. The range was 1 to 2 radios per family. There was considerable variation by counties. For example, 61.9% of the sample families in Marshall County had radios in cars, but none of the families interviewed in Palo Alto County reported having them in cars.

*On tractors:* Only one family, or 0.7% of the sample, had a radio mounted on a tractor at the time of the interview. However, a number of others mentioned that they usually had radios installed on their tractors during the farming season.<sup>14</sup>

*In other buildings:* Twenty-three families, or 15.6%

<sup>13</sup> One farmer mentioned that he carries a transistor radio in his front coverall pocket so that he can turn it on and listen to markets. In this way, he can continue his farm work, especially during the morning and get his markets too. Earlier he had to rely on his wife to listen or go to the house himself. He mentioned that his wife occasionally forgot to listen, so he then had to call a neighbor or seek out some other source.

<sup>14</sup> Interviews were taken during March and April. Nearly all the interviews were completed before field work began since it was a "late spring."

Table 1. Distribution of radios.

Number of radios per family	Number of families	Percentage of families
1	57	38.7
2	53	36.1
3	20	13.6
4	11	7.5
5	1	0.7
6	5	3.4
Total	147	100.0

of the sample, had radios in barns. Nine of these, or 39.1%, were in Bremer County. Thus, 42.9% of the farmers interviewed in Bremer County had radios in their barns.

One farmer had a radio in his hog barn. He left it on continuously throughout the day and night "for the hogs." One farmer had a radio in his garage, and another had a radio in his shop.

#### Radio-Listening Patterns

Radio station managers and radio advertisers long have been aware that there are certain peak as well as low listening periods each day. They also are aware that seasons of the year influence listening patterns. Thus, "spot" announcements aired at certain times of the day sell at premium prices and are sought after by radio performers and sponsors.

Although the farmers in this study said they listen to radio an average of 1 hour and 33 minutes a day, their listening charts showed that they actually listened 1 hour and 58 minutes.

Although some farmers did not listen to radio at any time during the study, one listened an average of 12 hours per day. The next largest daily amount of actual listening was 7 hours and 45 minutes, reported by several farmers.

The actual amount of radio listening varied somewhat by days of the week. The least amount of listening was on Saturday, Sunday and Monday. The most listening was done on Friday, 2 hours and 23 minutes, compared with 1 hour and 30 minutes on Sunday, when the least listening was done (fig. 2).

An analysis of the daily listening patterns showed three major listening times, during the noon hour, early morning between 6:00 and 8:00 and to some degree, the evening around 6:00.

Limited listening was recorded during the mid-morning, afternoon and in the evening hours after 8 (fig. 3, Appendix A).

The pattern of radio listening was basically the same on Saturday as on weekdays. There were, however, differences. The buildup of radio listening Saturday morning from 6:15 to 7:30 was slightly earlier than on weekday mornings. Moreover, more of the farmers listened to radio on Saturday morning than on other mornings. Radio listening was very limited during the weekday afternoons. But it was even more limited on Saturday afternoon, with no listening re-

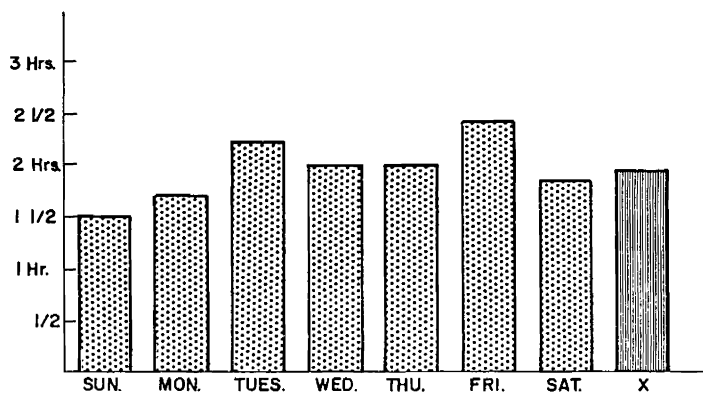


Fig. 2. Farmers' average number of hours of listening to AM radio (by day of week).

ported by the sample between 1:30 and 4:45 p.m., except for about 2% around 3 p.m. The early evening buildup of listening was about 45 minutes later on Saturday than on the weekdays. However, the peak listening time was between 6 and 6:30 p.m. on both weekdays and Saturdays.

Compared with the other days, a slightly later and much smaller buildup of radio listening occurred on Sunday, especially during the early morning. The largest percentage of farm families listening at a given time on Sunday was between 7 and 7:30 a.m., when approximately 26% had their radios on.

Sunday midmorning listening was, in general, somewhat higher than during the midmorning on other days, though listening fluctuated considerably on Sunday morning. As in the case of early morning listening, Sunday midday listening built up later and peaked at a level only about half as high as on weekdays. Midday listening extended a little later into the afternoon on Sunday than on other days. Sunday afternoon listening was relatively low but stable, not differing significantly from weekday listening patterns.

The evening buildup in radio listening occurred about 45 minutes later on Sunday (5:30) than on other days. Moreover, listening peaked at a level only about half that of other days. However, the peak listening time was the same, 6 to 6:30 p.m., and listening patterns after 7:45 p.m. were almost identical to those of other days of the week.

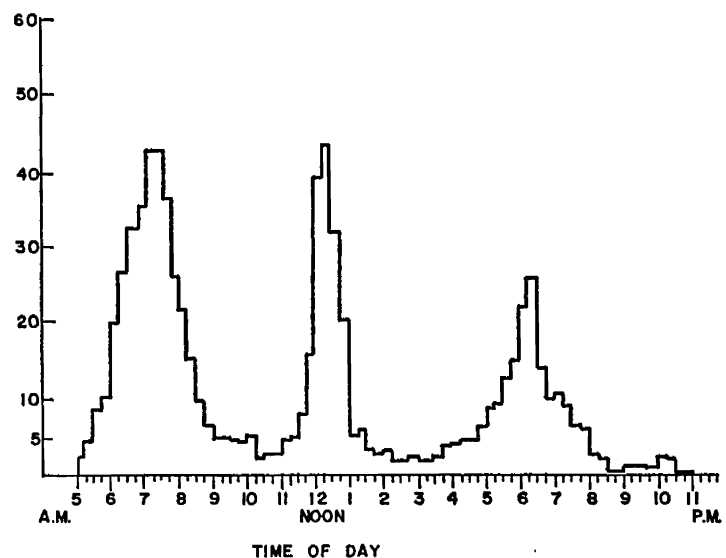
## Television

### Number of Television Sets

Almost all the sample farmers—141 of the 147, or 95.9%—had one or more television sets (table 2). These 141 farmers had 143 sets. Three families with one set each (2.1% of the sample) had sets that were not in working condition during the survey. One of these families indicated that they could not afford to have the set repaired.

There was some variation by counties in the percentage of families with sets: 85.7% of the sample families in Keokuk County had sets; 100.0% of the sample families in Carroll, Marshall and Wright

Fig. 3. Percentage of farmers listening to radios by 15-minute intervals on an average day.



**Table 2. Number and percentage of families by number of TV sets.**

Number of sets	Number of families	Percentage of families
0	6	4.1
1	139	94.5
2	2	1.4
Total	147	100.0

counties had sets. (The two families with two sets each were in Marshall County.)

#### Television-Viewing Patterns

On the average, farmers in this study actually watched television 2 hours and 30 minutes a day.<sup>15</sup> The most viewing was done on Sunday, 2 hours and 49 minutes, and the least amount on Saturday, 2 hours and 3 minutes. The amount of viewing also tended to be high on Monday, Tuesday, Thursday and Friday, ranging from 2 hours and 24 minutes to

<sup>15</sup> A correlation coefficient was computed to determine the relationship of the actual amount of time the farmer devoted to watching television each day, as recorded on his viewing chart, to the amount of viewing time he reported in answer to an open-ended question. The question read, "On the average, how much time do you spend viewing television in a week?" The data were converted to an average daily figure for analysis purposes. The resulting coefficient was 0.435, highly significant beyond the 1% level of confidence with 139 degrees of freedom.

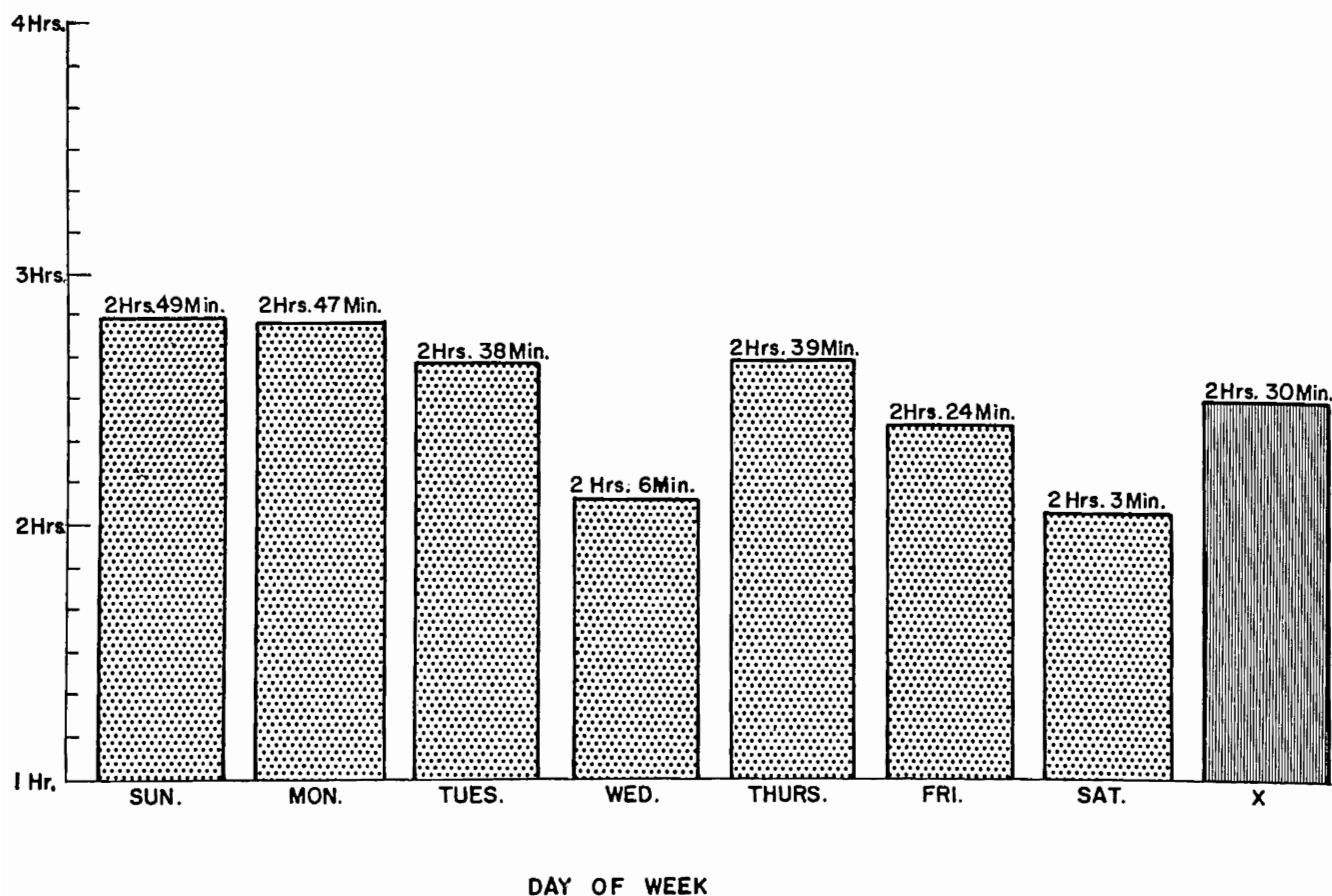
2 hours and 47 minutes for these four days. As on Saturday, viewing on Wednesday was considerably less than on the other days, with an average of 2 hours and 6 minutes per person (fig. 4).

It has been assumed—and no doubt known by television advertisers and others directly concerned with the medium—that viewing is principally done in the evening. This assumption was confirmed by the study.

Moreover, television-viewing patterns during the evening were very similar for all days—weekdays and weekends. Television viewing hit a peak of more than 50% of the potential audience between 8 and 9 p.m.

However, there were some differences between daytime viewing patterns for weekends and weekdays (Monday through Friday). A typical weekday's viewing began at 7 a.m. and gradually built up to a high of 17% of the potential audience by noon. After the noon hour, viewing dropped sharply, varying from 2 to 4% during the afternoon.

On Saturday and Sunday, viewing did not begin until about 9:30 a.m. and was nonexistent or nearly nonexistent between 11 a.m. and noon. On Saturday, viewing rose to only 8% at noon, dropping to zero by 3 p.m. and remaining there until early evening. On Sunday, viewing climbed to 18% at noon, hovered



**Fig. 4. Television viewing—average time spent by farmers by day of week.**

around 10-12% in the early afternoon and then began climbing sharply about 4:45 p.m.

Only a slight variation was noted between weekend and week night viewing from 6 to 9 p.m. Viewing patterns after 9 p.m. were virtually identical for all days.

## Radio and Television

### Listening and Viewing Contrasted

Average daily television viewing was greater than radio listening for each of the 7 days of the week.

Moreover, the greater amount of daily television viewing recorded on Sunday, Monday and Thursday tended to offset the lesser amount of daily radio listening recorded on those days. This finding might suggest the need to analyze the combined effects of radio and television rather than to make separate studies of the two media. Thus, it might be hypothesized that farmers' major leisure-time activity is watching TV or listening to radio and that a given amount of time is allocated each day to such activity. Thus, if a farmer listened to radio more on a given day, he would have less time to view television.

### Combined Listening and Viewing

Approximately 50% of the sample families listened to radio or watched TV between 6 and 9:30 p.m. About the same percentage of farmers had their TV sets or radio receivers turned on during the noon hour from 12 to 12:45.

The early morning peak in listening and viewing occurred between 7 and 7:30, when nearly 45% of the farmers had their radios or TV's on. Only a small percentage of farmers had their TV sets or radios on before 6 a.m., during the midmorning from 8:30 to 11:30 or during the afternoon from 1:30 to 5.

Combined radio listening and TV viewing dropped sharply from 10:15 to 11:15 p.m. After 12:15 at night, none of the farmers interviewed was listening to radio or viewing television.

A very few farmers began to watch television at 7 a.m., and the level of viewing remained very low during the morning. Shortly before noon, there was a rapid buildup in television viewing, with approximately 13% of the farmers watching during the noon hour. As with radio listening, only a small percentage of farmers watched TV programs during the afternoon.

Radio listening is done predominantly during the early hours, 6 to 8:30 a.m., and during the noon hour, but television viewing is limited mostly to the evening hours between 6 and 10:30. The drop in radio listening between 6:30 and 9 p.m. was offset by increased television viewing during the same period. Thus, it seems that farmers turned from radio listening to television viewing during the evening hours.

Radio listening dropped to a low level between 8:30 and 9 p.m. and had terminated by 11 p.m.

Analysis of the listening patterns of the six families without television sets and of the three families whose television sets were not operating at the time of the survey yielded these findings:

1. Nine farmers among the sample did 40% of all the radio listening after 8 p.m.
2. The six farmers who did not own a television set did not listen to radio at all after 8:30 p.m.
3. The three farmers with nonoperating television sets accounted for approximately 70% of all the radio listening done after 8 p.m. by the nine farmers.

By contrast, there was almost no radio listening between 8 and 10 p.m. among farmers interviewed *with* television sets in operating condition. However, this group did show a slight increase in radio listening beginning at 10 p.m.

In general, the six farmers who did not own a television set recorded radio-listening patterns similar to those who owned sets. However, there was some indication that these six farmers listened to radio a little later in the *early* evening, but they did not turn their radio back on at 10 p.m. as did some of the television set owners. These data also indicate that the evening radio-listening patterns of the three farmers with nonoperating television sets were very similar to the television-viewing patterns of the 138 farmers with working sets.

Thus, it might be hypothesized that one tends to substitute radio for television during the evening hours when his television set is not in working condition.

## Telephones

Of the 147 sample families, 141, or 95.9%, had telephones. They had 143 telephones.

## Newspapers

All but two of the 147 sample families, or 98.6%, received one or more newspapers in their home regularly. They had subscribed to an aggregate of 272 newspapers, of which 145 were daily papers, 126 were weekly papers, and 1 was delivered twice a week. The average was 1.85 newspapers per home.

Of the two families not receiving a newspaper, one family head remarked that, with the present farm prices, he could not afford to subscribe. The number of newspapers per home ranged from 1 to 6 (table 3). The number of subscriptions, as well as the frequency of delivery, varied considerably by counties (table 4).

## Farm Papers and Farm Magazines

Of the 147 sample farmers, 144, or 98.0%, said they

**Table 3. Average number of newspapers received in home regularly.**

No. of papers	All newspapers received		Daily paper		Weekly paper	
	No. of families	% of families	No. of families	% of families	No. of families	% of families
0	2	1.4	24	16.3	64	43.5
1	62	42.1	103	70.1	51	34.7
2	57	38.8	15	10.2	21	14.3
3	14	9.5	4	2.7	8	5.4
4	8	5.4	0		1	0.7
5	2	1.4	0		1	0.7
6	2	1.4	0		0	
No answer	0	0.0	1	0.7	1	0.7
Percentage receiving		98.6		83.7		56.55
One family received a given paper twice a week						

**Table 5. Number and percentage of families receiving magazines, farm papers and journals by number of publications.**

No. of 'publications'	No. of families	% of families
0	3	2.0
1	11	7.5
2	39	26.6
3	49	33.3
4	27	18.4
5	13	8.8
6	4	2.7
7	0	0.0
8	1	0.7
Total	147	100.0

**Table 6. Summary of various communications media by counties.**

Media	Percentage of farm families having media by counties							Total
	Adair	Bremer	Carroll	Keokuk	Marshall	Palo Alto	Wright	
Radios	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In home	100.0	90.2	100.0	100.0	100.0	100.0	100.0	98.6
In auto	28.6	19.0	66.7	47.6	61.9	0.0	14.3	34.0
On tractor	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.7
In other bldgs.	9.5	42.9	19.0	0.0	28.6	4.8	19.0	17.7
Television	95.2	100.0	100.0	85.7	100.0	100.0	100.0	95.9
Telephone	95.2	100.0	100.0	85.7	100.0	100.0	100.0	95.9
Newspaper	95.2	100.0	95.2	100.0	100.0	100.0	100.0	98.6
Daily	76.2	57.1	85.7	76.2	95.2	95.2	95.2	84.1
Weekly	85.7	90.5	61.9	81.0	42.9	9.5	19.0	56.6
Twice a week	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.7
Farm magazine, paper, journal	95.2	95.2	100.0	100.0	100.0	100.0	95.2	98.0

**Table 4. Average number of subscriptions by counties.**

County	Total (all) papers received			Daily papers received			Weekly papers received		
	No. of subscriptions	No. of families	% of families	No. of subscriptions	No. of families	% of families	No. of subscriptions	No. of families	% of families
Keokuk	53	21	100.0	19	16	76.2	34	17	81.0
Wright	25	21	100.0	20	20	95.2	5	4	10.0
Marshall	39	21	100.0	30	20	95.2	9	9	42.9
Adair	36	20	95.2	16	16	76.2	20	18	85.7
Carroll	45	20	95.2	26	18	85.7	18	13	61.9
Bremer	51	21	100.0	13	12	57.1	38	19	90.5
Palo Alto	23	21	100.0	21	20	95.2	2	2	9.5
Total	272	145	98.6	145	122	84.1	126	82	56.6

were regularly receiving, in addition to a newspaper, one or more publications such as magazines, farm papers and journals (table 5). They were receiving 441 of such publications or an average of 3 per home. The range was 1 to 8 per home. Thirty-two different publications were being received. In frequency, some publications were being received daily and, others, only a few times a year.

### Total Communications Media

Table 6 summarizes the various communications media serving the sample farmers in the seven counties involved in this study.

### FARMERS' PERCEPTIONS OF VARIOUS COMMUNICATIONS MEDIA

The farmers in the study were asked if they ever listen to radio farm market reports. Virtually all (95.9%) the 147 farmers interviewed indicated that they do listen to radio farm market reports. Only six (4.1%) farmers were not interested in such reports.

The farmers also were asked to indicate sources of farm market reports in addition to radio, in which they were interested. More than one source could be mentioned.

Of the various other sources mentioned, newspapers, television, buyers, magazines and journals



were mentioned most frequently as sources of farm market news (table 7).

A market news report should be accurate, timely, understandable and complete to be of maximum dollar value to both the producer and the handler of farm products. In view of this, the farmers were asked to rank sources of farm market reports they use. They were asked to give first-, second- and third-place rankings in each of the following categories: "Use most frequently," "Most accurate," "Most timely," "Most understandable" and "Most complete."

The farmers gave radio the highest rating in each of these categories, although they rated it only 1% above the buyer as an understandable source of farm market reports (table 8).

### FARMERS' PREFERENCES IN REGARD TO RADIO COVERAGE OF FARM MARKET REPORTS

In 1961, farm market news broadcasts were featured regularly by slightly more radio stations than ever before, according to a survey made by the U.S. Department of Agriculture.<sup>16</sup> Of the 2,104 radio stations replying in the survey, 1,584 indicated that they feature market news, mostly on a daily basis. Of the 51 radio stations reporting from Iowa, 88.2% carried market news broadcasts. In view of this and that radio stations in cities such as Omaha, Sioux City, Chicago, Kansas City and Minneapolis are easily heard in Iowa, it seems that radio farm market reports are readily available to the Iowa farmer.

The USDA survey also indicated an increasing tendency on the part of market newscasters to feature short reports mostly devoted to commodities of special interest in the radio station's area of coverage. Most stations that carry regular year-round market reports also carry seasonal marketing data on farm commodities of local interest whenever available.

### Types of Radio Programs Preferred by Farmers

Farmers in this study were asked: "If you had to do without a radio, what types of broadcasts (programs) would you miss most?" Their responses seemed to indicate that radio is a valuable source for news and markets. Four of five (82.3%) mentioned news as one of the types of broadcast they would miss most or second most; markets were mentioned by 70.1%. Weather and music were mentioned by 21.1 and 13.6%. Other types of programs specified were mentioned by less than 5% in all cases (table 9).

### Radio Station Preference

The 141 farmers in this study who said they listen to radio for farm market reports were questioned con-

cerning their station preference for such reports. Specifically, they were asked these questions: "What radio station(s) do you listen to for farm market reports?" and, "Of the radio stations you have just mentioned, to which do you listen most frequently for farm market reports?"

Farmers mentioned 22 different stations (table 10), including two in Nebraska, one in South Dakota and 19 in Iowa (about one-third of all Iowa stations). These included the stations they listened to most frequently and also those listed as second and third choice. Some stations were mentioned more often than others. Less than 1% named the least-mentioned station; more than 51% listed the most-mentioned station. Sixty-one of the 141 farmers (43.3%) who responded listed only one station. Fifty-four farmers (38.3%) listed two stations and 26 (18.4%) three stations.

Table 7. Sources of farm market news.

Source	No. farmers	% of 147
Radio	141	95.9
Newspaper	86	58.5
Television	63	42.9
Magazines and journals	33	22.4
Buyer (telephone buyer; buying station; livestock dealer; packer)	27	18.4
Commission man; commission firm	9	6.1
Commission report; producers market sheet; feeders report	7	4.8
Neighbor; hired man	4	2.7
Elevator	2	1.4
Trucker	1	0.7
Farm Bureau	1	0.7

Table 8. Perception of various sources of farm market reports.

Source of farm market reports	Use most frequently	Most accurate	Most timely	Most understandable	Most complete
Radio	67.4	53.3	66.0	41.8	46.1
Buyer	14.8	29.6	14.8	40.7	14.8
Television	14.3	14.3	20.6	34.9	19.0
Newspaper	12.8	18.6	9.3	22.1	33.7
Magazines and journals	0.0	3.0	0.0	15.2	15.2

Table 9. Types of radio broadcasts (programs) that would be missed.

Types of broadcasts (Programs)	Missed most		Missed second most		Total	
	No.	%	No.	%	No.	%
News, noon news, farm news, local news	76	51.7	45	30.6	121	82.3
Markets	43	29.3	60	40.8	103	70.1
Weather	15	10.2	16	11.6	31	21.1
Music	6	4.1	14	9.5	20	13.6
Sports	2	1.4	4	2.7	6	4.1
Farm information	1	0.7	3	2.0	4	2.7
Want ads, trading post	1	0.7	1	0.7	2	1.4
Religious programs	1	0.7	0		1	0.7
Local discussions	0		1	0.7	1	0.7
Dairy programs	0		1	0.7	1	0.7
Nothing	2	1.4	1	0.7	3	2.0
No answer	0		1	0.7	1	0.7
Total	147		147		294	

<sup>16</sup> Agricultural Marketing Service, Survey of radio and television market news broadcasts, Agr. Marketing Serv., U.S. Dept. Agr. AMS 29. 1960.



**Table 10. Radio stations to which farmers frequently listen for farm market reports.**

Call letters and location of radio station	Total mentions (N = 147)		Radio stations they listened to:		
	No.	%	Most	Second	Third
WHO Des Moines	76	51.7	51	21	4
WOI Ames	51	34.7	15	28	8
KICD Spencer	17	11.6	14	3	0
KFJB Marshalltown	15	10.2	8	4	3
KMA Shenandoah	11	7.5	7	3	1
WMT Cedar Rapids	11	7.5	8	2	1
KCIM Carroll	10	6.8	4	4	2
KFAB Omaha, Nebr.	9	6.1	2	3	4
KWWL Waterloo	7	4.8	6	1	0
KXEL Waterloo	6	4.1	5	0	1
KOEL Oelwein	5	3.4	2	3	0
KJFJ Webster City	5	3.4	2	3	0
KWVY Waverly	4	2.7	4	0	0
KGLO Mason City	3	2.0	3	0	0
KLGA Algona	2	1.4	2	0	0
WMAX Yankton, S.D.	2	1.4	1	1	0
KSIB Creston	2	1.4	0	2	0
KJAN Atlantic	2	1.4	1	1	0
KWWT Fort Dodge	2	1.4	1	1	0
WOW Omaha, Nebr.	2	1.4	2	0	0
KBOE Oskaloosa	2	1.4	1	0	1
KAYL Storm Lake	1	0.7	0	0	1
DK <sup>a</sup>	2	1.4	2	0	0
Do Not Listen			141	80	26
Total	247		147	147	147

<sup>a</sup> Could not identify station

**Table 11. Monthly variation in listening to radio farm market reports.**

Month	Yes, listen more frequently		Do not listen at all	
	No.	%	No.	%
Total	99	70.2	27	19.1
	Listen more (99)		Not at all (27)	
	No.	% of 141	No.	% of 141
January	48	34.0	7	5.0
February	50	35.5	6	4.3
March	52	36.9	2	1.4
April	34	24.1	5	3.5
May	23	16.3	11	7.8
June	11	7.8	21	14.9
July	9	6.4	23	16.3
August	10	7.1	22	15.6
September	28	19.9	8	5.7
October	41	29.1	4	2.8
November	50	35.5	2	1.4
December	48	34.0	6	4.3

## FARMERS' SEASONAL RADIO-LISTENING PATTERNS

Farmers' radio-listening patterns and work patterns are no doubt affected by the seasons of the year. The seasons of the year certainly influence the work patterns of many grain and livestock farmers in Iowa. Since this is the case, it is quite possible that the farmers' interest in farm market reports also varies seasonally.

The farmers in the study were asked these questions concerning their radio-listening patterns: "Are there any special months during the year when you listen more frequently to radio farm market reports? Are there any months during the year when you do not listen to radio farm market reports?"

The data showed some contrasting but consistent findings (table 11). Six of the farmers, or 4.1%, were not interested in radio farm market reports. Thus the question applied to the remaining 141. There were 42, or 29.8%, of the 141 farmers who listened at about the same rate during all months of the year. However, 99 of the 141 farmers, or 70%, indicated that there were special months during the year when they listened more frequently for radio farm market reports. Twenty-seven of these farmers, or 19.1%, mentioned that there were also months during the year when they do not listen to such reports at all. (These 27 were all in the group of 99 farmers.)

The months of October through March are by far the most popular for listening to radio farm market reports. During these six months, approximately one-third of the farmers indicated that they listen to such reports more frequently than at other times. These same six months generally were least frequently mentioned as months during which the farmers usually do not listen at all.

Approximately 7% mentioned June, July and August as months during which they listen most frequently. Approximately 16% said they do not listen at all during these months. April, May and September were "transition" months. Listening tended to drop off in April and May and to begin picking up in September.

When one considers these findings and the average (mean) number of months mentioned by each farmer (about 4 months), it seems that the radio farm market report listening patterns of most of the farmers are affected by the seasons of the year.

Two independent measures were used in this study to measure the amount of listening being done by the farmers for farm market broadcasts from WOI, the educational station at Iowa State University. The data in table 12 show the responses to one of these measures, an open-ended question. More than half of the sample members (51%) said that they listen to WOI for farm market broadcasts. However, the fre-

**Table 12. WOI farm market broadcast listening patterns of sample members.**

Listening frequency	No. of farmers	% of total
Three times per day	1	0.7
Twice daily	2	1.4
Once daily	21	14.3
Three times per week	5	3.4
Two times per week	4	2.7
Daily in fall when I sell hogs, otherwise once per week	1	0.7
One time per week	7	4.8
Two times per month	2	1.4
One time per month	4	2.7
Seven times per year	1	0.7
Six times per year	1	0.7
Four times per year	1	0.7
Three times per year	2	1.4
When I have things to sell	13	8.8
Times not specified	5	3.3
No answer to question	5	3.3
Do not listen to WOI radio markets	72	49.0
Total	147	100.0

**Table 13. Who listens for radio farm market reports when the farmer cannot.**

Individual	Number	Percentage
Wife	83	58.9
Father	2	1.4
Mother	1	0.7
Son	1	0.7
Neighbor	1	0.7
Brother	1	0.7
No one	50	35.5
No answer to question	2	1.4
Total	141	100.0

**Table 14. Number of daily farm market broadcasts desired by farmers.\***

Number of daily broadcasts	Total 147 farmers	
	No.	%
1	40	27.2
2	66	44.9
3	30	20.4
4	4	2.7
5	1	0.7
Do not listen	6	4.1
Total	147	100.0

\*N = 141  $\bar{X}$  = 2.0 daily market broadcasts

N = 147  $\bar{X}$  = 1.9 daily market broadcasts

quency of their listening to this station varied considerably. The range was from several times a day to as infrequent as several times a year. It appears that some of these farmers are "seasonal" listeners.

### WHO LISTENS TO MARKET REPORTS FOR THE FARMER WHEN HE IS NOT NEAR A RADIO?

The wife of the farmer seems to have an additional responsibility as compared with her urban counterpart. Approximately 6 of every 10 farmers indicated that they depend on wives to listen to the radio for farm market reports when the farmers cannot. This question was asked: "When you cannot personally listen to the radio for farm market reports, do you have someone else listen and get the information for you?"

Eighty-nine of the 141 farmers to whom the question applied, or 63.1%, indicated that they do. Of the 89 farmers who answered yes, 83 said their wives listen for them (table 13). Mentioned as other listeners were father, mother, sons, brother and neighbor.

### PREFERRED NUMBER OF DAILY FARMER MARKET REPORTS

Approximately 96% of the Iowa farm operators interviewed expressed interest in hearing radio farm market broadcasts. The range in the number of daily farm market broadcasts desired by these farmers was from one to five with an average (mean) of two. Slightly more than one-fourth of the farmers indicated that they wanted only one such broadcast, nearly 45% wanted two, and about 20% desired three (table 14). The percentage of the sample members

wanting four and five daily farm market broadcasts was relatively small in comparison with the three major categories.

**Table 15. Preferred starting time for farm market broadcasts.**

Specific starting time <sup>a</sup>	First market report	Second market report	Third market report	Fourth market report	Fifth market report	Total		Rank order
						No. of mentions	% of total (147)	
5:00 AM	1					1	0.7	
5:15	1					1	0.7	
5:30	4					4	2.7	
5:45						0	0.0	
6:00	15	2				17	11.6	3
6:15	1					1	0.7	
6:30	15	1				16	10.9	4
6:45		1				1	0.7	
7:00	9	1				10	6.8	9
7:15						0	0.0	
7:30	3					3	2.0	
7:45						0	0.0	
8:00	13					13	8.8	7
8:15	2					2	1.4	
8:30	2	1				3	2.0	
8:45	1					1	0.7	
9:00	9	2				11	7.5	8
9:15		1				1	0.7	
9:30	15	5	1			21	14.3	2
9:45	2	1				3	2.0	
10:00	4	4				8	5.4	
10:15						0	0.0	
10:30	6	1	2	1		10	6.8	9
10:45	2					2	1.4	
11:00	2					2	1.4	
11:15						0	0.0	
11:30	2	1				3	2.0	
11:45						0	0.0	
12:00 PM	25	51	11	1	1	89	60.5	1
12:15	1	5				6	4.1	
12:30	5	8	1			14	9.5	6
12:45						0	0.0	
1:00		1	4			5	3.4	
1:15			1			1	0.7	
3:00		1				1	0.7	
4:00		1				1	0.7	
5:00		2				2	1.4	
5:30		1	1			2	1.4	
6:00		6	6	3		15	10.2	5
6:15			1			1	0.7	
6:30	1	2	2			5	3.4	
6:45						0	0.0	
7:00		1	4			5	3.4	
9:00		1				1	0.7	
No answer			1					
Doesn't desire	6	46	112	142	146			
Total	147	147	147	147	147			

<sup>a</sup> Starting time refers to the actual time of the day a farmer indicated he would like to have a given farm market broadcast.

<sup>b</sup> No farmer indicated that he would like to hear a market report during 1:30 to 3:00; 3:15 to 4:00; 4:15 to 5:00; 5:15 to 5:30; 5:45 to 6:00; and 7:15 to 9:00. In addition, no one desired a farm market report to begin before 5 a.m. or later than 9 p.m.

## PREFERENCE CONCERNING DAILY LISTENING FOR FARM MARKET REPORTS

### Starting Time

The findings of this research indicate considerable difference in regard to the time of the day when farmers would like to hear a radio farm market broadcast. One farmer expressed interest in hearing market broadcasts as early as 5:00 in the morning, and another farmer desired such a broadcast as late as 9:00 in the evening (table 15).

By far the largest percentage (60.5%) of farmers indicated that they would like to hear a farm market broadcast beginning at 12:00 noon. A midmorning broadcast at 9:30 and an early morning report at 6:00 were desired by 14.3 and 11.6% of the farmers. Very little interest was shown in afternoon market broadcasts, but about 10% of the farmers wanted one at 6:00 p.m.

### Length of Farm Market Broadcasts

In addition to the desired starting time for farm market broadcasts, the farmers also were asked to indicate how long they would like the broadcasts to run; i.e., the broadcasting time in minutes. The range of broadcasting time varied from 5 minutes to as much as 90 minutes (table 16). The desired length of farm market broadcasts wanted by these farmers averaged 17.2 minutes. However, the information in table 16 should be interpreted with extreme caution.

The averages (means) presented in the table have been derived for the number of daily broadcasts wanted by the farmers. Those requesting only one

**Table 16. Number of radio farm market report broadcasts 147 Iowa farmers would like to have per day and broadcasting time in minutes.**

Number of daily broadcasts	Number of farmers	Broadcasting time in minutes <sup>a</sup>										X <sup>b</sup> mean <sup>c</sup>
		5	6-9	10	11-14	15	30	45	60	90		
1	40	8	0	3	1	17	9	0	1	0	1	17.1
2	66	16	2	7	0	66	32	2	2	1	4	18.9
3	30	17	0	15	0	34	19	0	1	0	4	16.0
4	4	4	0	5	0	6	1	0	0	0	0	11.9
5	1	0	0	3	0	2	0	0	0	0	0	12.0
Do not listen	6											
Total	147	45	2	33	1	125	61	2	4	1	9	17.2

<sup>a</sup> This table should be interpreted with care. It appears that a number of respondents gave a time range during which they wanted to hear broadcasts rather than actual length of market reports in minutes. This caution appears supported by the data reported in table 4; the mean number of market aspects wanted during a given market broadcast did not exceed three for farmers who desired market broadcasts of 30, 45, 60 and 90 minutes.

<sup>b</sup> No length of broadcast specified.

<sup>c</sup> The reported means were derived from row total figures, exclusive of the frequency for which no length of broadcast was specified. The row mean represents the "average" length of market broadcast wanted by those who indicated that they would like to hear the number of broadcasts shown at the left.

market broadcast wanted it to average about 17 minutes in length. Those desiring two broadcasts per day desire broadcasts averaging 18.9 minutes in length. Broadcasts averaging 16 minutes in length were desired by the 30 farmers who requested three daily farm market broadcasts. In other words, the farmers in this group would like to hear about 48 minutes of market broadcasts daily.

### Number of Market Aspects and Length of Broadcasts

Presented in table 17 are the number of farmers

**Table 17. Number of farmers wanting a radio farm market broadcast of a given length (minutes) and the mean number of market aspects wanted during the time as classified by farm market reports.**

Length of mkt. broadcast (minutes)	First mkt. report		Second mkt. report		Third mkt. report		Fourth mkt. report		Fifth mkt. report		Total all mkt. reports	
	No. <sup>a</sup>	Mean <sup>b</sup>	No. <sup>a</sup>	Mean <sup>b</sup>	No. <sup>a</sup>	Mean <sup>b</sup>	No. <sup>a</sup>	Mean <sup>b</sup>	No. <sup>a</sup>	Mean <sup>b</sup>	No. <sup>a</sup>	Mean <sup>b</sup>
5	24	3.7	15	8.9	5	1.8	1	3.0	0	0.0	45	5.2
6-9	1	3.0	1	4.0	0	0.0	0	0.0	0	0.0	2	3.5
10	14 <sup>c</sup>	5.2	11	6.0	6	4.3	2	4.5	0	0.0	33 <sup>c</sup>	5.3
11-14	1	9.0	0	0.0	0	0.0	0	0.0	0	0.0	1	9.0
15	63	3.9	45	4.2	15	6.3	1	1.0	1	10.0	125	4.3
30	30	3.2	23	2.6	7	3.4	1	4.0	0	0.0	61	3.0
45	1	2.0	1	4.0	0	0.0	0	0.0	0	0.0	2	3.0
60	3	4.0	1 <sup>c</sup>	0.0	0	0.0	0	0.0	0	0.0	4 <sup>c</sup>	3.0
90	0	0.0	1	2.0	0	0.0	0	0.0	0	0.0	1	2.0
No length specified	4	2.0	3	1.7	2 <sup>c</sup>	1.0	0	0.0	0	0.0	9 <sup>c</sup>	1.8
SUBTOTAL	141	3.8	101 <sup>c</sup>	4.6	35 <sup>c</sup>	4.5	5	3.4	1	10.0	283 <sup>d</sup>	4.2
Do not desire mkt. report	6		46		112		142		146			
Total	147		147		147		147		147			
Mean length (Minutes) of Market Reports <sup>a</sup>												
	17.2		17.9		15.8		14.0		15.0		17.2	

<sup>a</sup> Number of farmers wanting a farm market broadcast of a given length (minutes).

<sup>b</sup> The mean number of market aspects wanted during the broadcast by those reported in the group.

<sup>c</sup> The corresponding mean has been based on this number minus one because of partial missing data.

<sup>d</sup> The reported total mean of 4.2 was based on a total number of 280 rather than 283 because of partial missing data regarding three of the desired market broadcasts.

<sup>e</sup> Mean based on column frequencies excluding those for which no length of market report was specified.

and the length of farm market broadcasts these farmers desired, categorized on the basis of market reports. Included in the "First Market Report" columns are the responses of the farmers who wanted only one farm market broadcast (report) and also the responses regarding their first of such broadcasts for those wanting two or more. Similarly, the information included in the "Second Market Report" columns refers to the second farm market broadcast for those wanting two or more. The average (mean) number of desired market aspects for each "Market Report" of a given length is also shown in the table.<sup>17</sup>

The length of the farm market broadcasts requested by the farmers varied from 5 to 90 minutes, with an average (mean) of 17.2. However, farmers asked for an average of only 4.2 market aspects to be included during each broadcast. Upon further inspection of the data reported in table 17, there does not appear to be any significant relationship between the mean number of market aspects desired during a broad-

<sup>17</sup> A market aspect, as we use the term, is the smallest interrelated bit of data broadcast. Some examples are "opening bids on hogs on interior Iowa markets" and "closing fat cattle prices at Chicago." See Appendix B for further details.

cast and the length of the broadcast within any of the five "Market Reports"—or between them.

The mean length in minutes of the categories of "Market Reports" are shown at the bottom of the table. Although the desired length of the second market broadcast wanted by the farmers was slightly longer than that of the first, the remaining three tended in general to be progressively shorter.

## PREFERRED CONTENT OF FARM MARKET BROADCASTS

In addition to the number, length and starting time of radio farm market reports and the number of market aspects<sup>18</sup> wanted during each, specific attention was focused on the desired aspect content of these broadcasts. Many of the 70 market aspects presented in table 18 are presented during radio farm market broadcasts.

Shown in the table are the number of farmers who indicated that they would like to have a given aspect

<sup>18</sup> Smallest interrelated bit of data broadcast, such as "opening bids on hogs in interior Iowa markets" and "closing fat cattle prices at Chicago."

**Table 18. Number and percentage of farmers mentioning farm market aspects and the number of times each aspect was mentioned.**

Aspects of farm market reports	No. of farmers	No. of mentioned	Percentage of total (farmers)	Rank order <sup>a</sup>
<b>Review of previous day's market</b>				
Livestock at Chicago	23	31	15.6	11
Grain produce market at Chicago	10	12	6.8	19
Terminal and interior livestock markets	25	33	17.0	10
<b>Hogs</b>				
Hog opening at Chicago	27	39	18.4	9
Hog opening at Chicago, St. Louis and Indianapolis	7	9	4.8	
Hog opening at interior Iowa and southern Minnesota packing plants	53	77	36.1	1
Hog trade at interior Iowa and southern Minnesota packing plants	50	74	34.0	2
Hogs, current reports at midwestern terminal markets	18	24	12.2	16
Hogs, midmorning interior Iowa and southern Minnesota	22	26	15.0	12
Hogs, midwestern terminal markets (noon summary)	20	24	12.9	15
Hogs, interior Iowa and southern Minnesota (noon summary)	19	24	12.9	15
Hogs, closing midwestern terminal markets	23	26	15.6	11
Hogs, closing interior Iowa and southern Minnesota markets (available at noon)	32	38	21.8	8
<b>Cattle</b>				
Cattle, current reports at midwestern terminal markets	40	51	27.2	3
Cattle, midwestern round-up at terminal markets	21	29	14.3	13
Cattle, noon summary of midwestern terminal markets	34	46	23.1	7
Cattle, closing midwestern terminal markets	36	44	24.5	6
<b>Sheep</b>				
Sheep, current reports at midwestern terminal markets	6	6	4.1	
Sheep, midmorning interior Iowa and southern Minnesota	5	9	3.4	
Sheep, midwestern round-up at terminal markets	0	0	0.0	
Sheep, noon summary midwestern terminal markets	3	3	2.0	
Sheep, summary interior Iowa and southern Minnesota	4	4	2.7	
Sheep, closing midwestern terminal markets	2	2	1.4	
Sheep, closing interior Iowa and southern Minnesota markets	2	2	1.4	
<b>Livestock</b>				
Livestock receipts at 10 midwestern terminal markets	37	46	25.2	5
Livestock supplies at 12 public markets with comparisons	9	11	6.1	20
Livestock estimates at 7 midwestern markets expected the next day	22	25	15.0	12
Livestock, advanced estimates for morning	22	27	15.0	12
<b>Dressed Meat</b>				
Dressed meat at New York	13	19	8.8	18
Dressed meat at Chicago	15	17	10.2	17
<b>Poultry</b>				
Live poultry at Chicago	1	1	0.7	
Live poultry market in Iowa	13	14	8.8	18
Dressed poultry at Chicago	1	1	0.7	

Table 18 (continued).

Aspects of farm market reports	No. of farmers	No. of mentioned	Percentage of total (farmers)	Rank order <sup>a</sup>
Dressed poultry at New York	2	2	1.4	
Broiler and fry market, Arkansas and North Georgia	0	0	0.0	
<b>Eggs</b>				
Egg futures opening at Chicago	10	12	6.8	19
Egg futures at Chicago	3	4	2.0	
Egg cash market at Chicago and New York	8	11	5.4	
Egg cash market summary at Chicago and New York	8	10	5.4	
Egg market in Iowa	23	27	15.6	11
Egg futures closing at Chicago	4	4	2.7	
<b>Butter</b>				
Butter, cash market at Chicago and New York	5	9	3.4	
Butter, cash market summary at Chicago and New York	4	4	2.7	
Butter, Iowa and federal	7	10	4.8	
<b>Grain</b>				
Grain, futures opening at Chicago	38	47	25.9	4
Grain, futures	20	25	13.6	14
Grain, futures closing at Chicago	19	24	12.9	15
Cash grain sales at Chicago	18	24	12.2	16
High and lows on grain	10	10	6.8	19
Volume of future trading for previous day	9	9	6.1	20
<b>Soybean Oil</b>				
Soybean oil, futures opening at Chicago	8	9	5.4	
Soybean oil, futures	5	5	3.4	
Soybean oil, current quotations	4	4	2.7	
Soybean oil, futures closing at Chicago	5	6	3.4	
<b>Soybean Meal</b>				
Soybean meal, futures at Chicago	7	9	4.8	
Soybean meal, futures	4	4	2.7	
Soybean meal, current quotations	7	9	4.8	
Soybean meal, futures closing at Chicago	6	7	4.1	
<b>Flax</b>				
Flax, close at Minneapolis	0	0	0.0	
<b>Cotton</b>				
Cotton, futures open at New York	0	0	0.0	
Cotton, futures closing at New York	0	0	0.0	
<b>Lard</b>				
Lard, futures opening at Chicago	3	3	2.0	
Lard, futures	3	3	2.0	
Lard, futures closing at Chicago	2	2	1.4	
<b>Stocks</b>				
Dow-Jones, 11:00 a.m. industrial stock average	4	6	2.7	
Stock market at New York	5	5	3.4	
Dow-Jones, noon Stock averages	6	7	4.1	
Dow-Jones, 1 p.m. stock averages	1	1	0.7	
Dow-Jones, 2 p.m. industrial stock averages	1	1	0.7	
Stock market closing at New York	3	3	2.0	

<sup>a</sup> The ranking of each aspect was determined on the basis of the percentage of total (farmers) mentioning it. Only top 20 were ranked.

included in a farm market broadcast, the number of times the aspect was mentioned and the percentage of sample members who requested the aspect. Also given is the rank order of the 10 aspects mentioned by the largest number of farmers. Since some of the farmers expressed interest in having a given aspect repeated during a second, third, etc., daily market broadcast, the number of times an aspect was mentioned in many cases was greater than the number of farmers involved. For example, 23 farmers mentioned a total of 31 times that they would like to hear a "review of the previous day's livestock market at Chicago." In this case, eight of the farmers wanted this particular aspect repeated during the second daily market broadcast they requested.

Specific information on hogs, cattle and grain was desired by the largest number of farmers. Slightly over 36% reported that they would like to have the "hog opening at interior Iowa and southern Minnesota

packing plants" aspect mentioned. Information on "hog trade at interior Iowa and southern Minnesota packing plants" was desired by 34%. The next largest percentage of the farmers (27.2%) wanted to hear "current cattle reports at midwestern terminal markets." Nearly 26% expressed interest in having the "grain futures opening at Chicago" aspect given during at least one farm market broadcast.

#### WHAT DETERMINES RADIO STATION PREFERENCE IN MARKET REPORTS: SUGGESTIONS FOR IMPROVEMENT

Farmers were asked, "What are the main reasons you listen to farm market reports most frequently from Radio Station . . . ?" The largest number, 48, mentioned various dimensions of timeliness of the market reports; 35 gave reasons falling in the category of "local appeal;" and 33 mentioned various aspects

of content, accuracy and completeness of information. Other reasons listed for selecting a given radio station for market reports were "good reception," "habit," personality traits such as liking the announcer's voice and preference for a station's "package program," such as one containing general news, weather and markets.

Farmers also were asked, "In your opinion, could . . . . . radio market reports be improved in any way to better fit your needs?" In reply to this question, they listed timeliness, market report content (including accuracy and completeness of information), station reception and personality aspects as the main areas in which improvements can be made.

A summary of the reasons farmers gave for listening to a specific radio station for farm market reports follows. The number of times each reason was mentioned is given in parentheses after each reason. Typical comments are listed under each reason.

*Timeliness (48):*

- "Convenient time for markets"
- "Comes on at noon when in the house"
- "Comes on when (I'm) eating dinner"
- "Comes on before noon"
- "Can get markets every half hour"
- "Timely broadcasts"
- "It's the only station with early morning markets"
- "Gives about earliest market in morning"
- "Catch markets earlier"
- "Best and up-to-date when exchange opens"

*Content; accuracy and completeness of information<sup>19</sup> (33):*

- "Early estimate reports"
- "I like early morning openings"
- "Gives a quick summary of all the markets"
- "More fitting to my needs"
- "Gives report that I'm interested in"
- "Most of the time I'm only interested in the general pattern and not details when I come in the house"
- "Broad coverage" "Full report"
- "Like the market reports"
- "More accurate on reports"
- "Get a better detailed report"
- "Give best thorough market"
- "Most complete report"
- "Complete farm market and news report"
- "Most complete for my use"
- "More markets than other stations"
- "Better market reports"
- "More complete market than local station has"
- "Covers Iowa and Minnesota reports well"

*Package deal (9):*

- "We turn to station . . . at noon and get a combination of news, weather and markets"

<sup>19</sup> It appears that individuals evaluate media, such as newspaper, radio and television, as being most accurate, complete, etc.; and then evaluate more specifically the particular station or publication selected. For example, if radio is selected, a specific station is chosen.

"Markets are on right at noon when we get the 12 noon news"

"Comes on (markets) when we are listening for news"

"Of interest to me--news, weather and such"

"To get local markets and weather reports"

"Get local news and markets"

*Personality dimension; human aspect (9):*

"Like station and announcer"

"Well given"

"More friendly touch show, appeal more to my way of feeling"

"(I) like station"

"Clearly given"

"Most interesting"

*Reception; nonhuman aspect (18):*

"Less interference"

"Better reception"

"Best reception"

"Comes in clear"

"Clearer station"

"Good reception"

"Station easy to get"

*Local appeal<sup>20</sup> (35):*

"Give local (market) news and that is where we take livestock"

"Give local reports (markets) (of interest to me)"

"A little more run on our local territory"

"Sell hogs (in town where station is located)"

"More local"<sup>21</sup>

"More local reports (than some other station)"

"Prefer local report"

"Of more interest to me (local)"

"Gives area report (local=several counties) of interest to me"

*Habit (12):*

"Just habit"

"Just got used to them"

"Habit and familiarity with them (time)"

"Dial set on this station and reception and programs (are) good"

"Habit--on when in house"

"Habit--local station"

*Other reasons (6):*

"They tell if report is coming in late"

"Find out trend of hog market"

"Listen for change of market reports"

"Usually gives complete reports for interior Iowa"

<sup>20</sup> The meaning of "local station" appeared to vary among sample members. In general, it seemed to imply a station that features news and programs for a particular locale and tends to stimulate identity among its listening audience. Part of this is a function of transmitting power and frequency. In this study, a community within a county, a county or even an area of several counties were referred to as "local." More specifically, sample members in a county adjacent to one with a radio station, spoke of the station as being their local radio station. The authors are aware that the particular station referred to here does orient its programming to the county it's located in as well as adjacent counties.

<sup>21</sup> This is a different type of local. It is believed that the respondent meant that it gives a major Iowa report rather than, for example, Chicago, St. Louis, Omaha, etc.

"Give individual interior reports"

"Like direct sale reports"

A summary of farmers' suggestions for improving radio farm market reports follows.<sup>22</sup> The number of times each suggestion was mentioned is given in parentheses. Typical comments are listed under each suggestion.

#### *Timeliness (19):*

"Earlier broadcasts (reports) in morning"

"Earlier estimate on interior market"

"Would like some livestock reports earlier"

"If they had them at 10:30 it would be better, the earlier reports are estimates and there aren't any definite trends established yet"

"Could run their advanced estimate often"

"Midmorning markets aren't on at a convenient time"

"Too late to benefit on that day's market"

"A little behind on part of the reports, a half day sometimes"

"Schedule a better time—preferably at noon"

"Should be earlier in day—before noon"

"More often"

"If miss early markets, it is 11:30 before second report"

"Could have cattle noon summary back at 12:30 instead of at 1:10"

"Could have reports between 12:00 and 12:30. And, day's receipts at 6:00 p.m."

#### *Content; accuracy and completeness of information (11):*

"Could give better estimates and price reports of the previous day"

"Drop eastern (industrial) stock market report"

"Along with farm markets would like industrial stock market reports"

"It doesn't give much of a grain report. Not a complete report"

"More information on crop report"

"A little more complete market report"

"Give direct sale report"

"Give out too much information"

"Livestock receipts could be more accurate"

<sup>22</sup> In terms of the particular radio station they listen to most frequently.

"Give more rundown on interior markets"

"Too much time spent on interior market reports"

#### *Personality dimension; human aspect (3):*

"(Announcer) has his own opinion (questions this)"

"Jump back and forth too much, should be clear and specific"

"Talk slower"

#### *Reception; nonhuman aspect (1):*

"Would listen more if reception were better"

#### *Other reasons (4):*

"Shorter reports and to the point, simplify—should time report"

"I'm not just sure of the exact time when each of the different aspects of the report come"

"Should repeat at close"

"Have good coverage, but sit too long and wait for what I want to hear"

The foregoing summaries indicate that farmers' interest in farm market news varies considerably. Whereas some indicated interest in a specific number of reports, a specific time for market reports, or a specific content, etc., others specified interest in a package program of general news, weather and markets presented during the noon dinner period. Still others did not comment at all.

## **USE OF RADIO FARM MARKET REPORTS IN MAKING MAJOR FARMING DECISIONS**

### **Variations in Source of Farm Product Income**

Before presenting data on the use of radio farm market reports in making major farming decisions it is useful to note the relative importance of various sources of farm income. It would be expected, for example, that the sample farmers would listen most often to market reports on the most important crops—and that where they used market information to make major farming decisions, it would be information relating to these major crops.

Hogs were listed as the largest or second largest source of farm income for nearly eight of every 10 farmers interviewed (77.6%). In 51.0% of the cases, hogs actually were the largest source. Cattle were reported the largest or second largest source in 49%

**Table 19. What was your largest source of farm product income last year (1960)?**

Farm products	Largest source of income		Second largest source		Total	
	Number of farmers	Percentage of total (147)	Number of farmers	Percentage of total (147)	Number of farmers	Percentage of total (147)
Hogs	75	51.0	39	26.5	114	77.6
Cattle	31	21.1	41	27.9	72	49.0
Calves	1	0.7	3	2.0	4	2.7
Dairy	15	10.2	12	8.2	27	18.4
Sheep (custom sheep shearing)	1	0.7	2	1.4	3	2.0
Eggs			8	5.4	8	5.4
Small grain	4	2.7	9	6.1	13	8.8
Corn	20	13.6	16	10.9	36	24.5
Beans			13	8.8	13	8.8
Does not apply. No answer			4	2.7	4	2.7
Total	147	100.0	147			



**Table 20. What percentage of your total gross farm income was your largest and second largest source of farm product income last year (1960)?**

Percent of total income	Sources of farm product income (number of farmers)													
	Hogs		Cattle		Calves		Sheep		Dairy		Eggs		Grain	
	a <sup>a</sup>	b <sup>b</sup>	a	b	a	b	a	b	a	b	a	b	a	b
100	1	1	1	1	1	1	1	1	1	1	1	1	1	1
99	1	1	1	1	1	1	1	1	1	1	1	1	1	1
90	1	1	3	1	1	1	1	1	1	1	1	1	1	1
85	1	1	1	1	1	1	1	1	1	1	1	1	1	1
80	4	1	1	1	1	1	1	1	1	1	1	1	1	1
75	6	1	1	1	1	1	1	1	1	1	1	1	1	1
70	9	1	4	1	1	1	1	1	1	1	1	1	1	1
66.6	4	1	1	1	1	1	1	1	1	1	1	1	1	1
65	2	1	1	1	1	1	1	1	1	1	1	1	1	1
60	16	1	8	1	1	1	1	1	1	1	1	1	1	1
55	3	1	1	1	1	1	1	1	1	1	1	1	1	1
50	18	4	9	1	1	1	1	1	3	1	1	1	8	2
45	2	1	1	1	1	1	1	1	3	2	1	1	1	1
40	6	10	1	3	1	1	1	1	3	5	1	3	2	1
39	1	1	1	2	1	1	1	1	3	1	1	1	1	1
35	1	2	1	3	1	1	1	1	3	1	1	1	1	1
33.3	1	3	1	3	1	1	1	1	1	1	1	1	1	1
30	2	12	1	13	1	1	1	1	2	2	1	2	1	1
29	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	1	1	1	6	1	1	1	1	1	1	1	2	1	2
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	3	1	1	5	1	1	1	1	1	1	1	1	2	5
15	1	1	1	2	1	1	1	1	1	1	1	1	1	1
12.5	3	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	2	1	1	1	1	1	1	1	1	1	3
n=	75	39	33	41	3	3	1	2	15	12	7	3	9	20
x̄=	59.0	32.8	55.6	28.6	66.7	19.4	50.0	30.0	51.7	36.5	25.2	80.0	32.5	56.9

<sup>a</sup>a = largest <sup>b</sup>b = second largest

of the cases and the largest source in 21.1% of the cases. Corn was mentioned as the largest or second largest source in 24.5% of the cases.

The largest source of farm product income made up about 57% of the total farm income; the second largest source of farm income was 31% of the total. In no case were eggs or beans the largest source of income, although they were included on the list of farm product income sources along with hogs, cattle, calves, dairy products, sheep and corn (table 19).

The largest source of income made up varying proportions of total gross farm income. The largest source accounted for as little as 30% of total gross farm income in some instances, but it made up 100% of total gross farm income for one grain farmer and for one corn farmer. The second largest source of income accounted for as much as 50% of total gross farm income and for as little as 10% for six of the farmers. From table 20, it appears that the farming programs of those interviewed were generally quite diversified.

#### Percentage of Farmers Who Record Radio Farm Market Reports

Only 15, or 10.2%, of the farmers interviewed reported that they ever write down, graph or chart any part of farm market reports they hear on radio. Information on current prices was most often recorded (table 21).

#### Use of Radio Farm Market Reports in Decision Making

The following question was asked of 141 farmers

for both their largest and second largest source of farm product income:

"Did radio farm market reports help you:

- ... to decide when to sell (your ....)
- ... to decide where to sell
- ... to decide what price to accept
- ... to decide whether price received was acceptable
- ... to decide whether to sell all at one time or to split it up
- ... to decide to increase production
- ... to decide to continue production at present rate
- ... to decide to discontinue production
- ... to decide types of feeder stock to purchase
- ... to decide length of feeding time
- ... to decide market weights to shoot for
- ... to develop personal knowledge of markets and market trends

**Table 21. Types of information farmers record while listening to radio farm market reports.**

Response to question	No.	%
Prices; top prices; hog prices; livestock prices	5	
Market quotations; open and close on livestock; hogs and cattle information; interesting reports; day by day reports; interior, three or four majors	8	
Bulletin numbers	1	
Wife records the information	1	
Sub-total	15	10.2
No, do not record such information	126	85.7
Question does not apply (does not listen to market reports)	6	4.1
Total	147	100.0



**Table 22. Percentage of farmers who use radio in various kinds of decisions, as classified by farm product income source.**

Kind of decision	Hogs		Cattle		Milk		Eggs		Grain		Corn		Beans	
	Income source		Income source		Income source		Income source		Income source		Income source		Income source	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
n	(75)	(39)	(31)	(41)	(15)	(12)	(0)	(8)	(4)	(9)	(20)	(16)	(0)	(13)
When to sell	73.3	74.4	67.7	73.2	13.3	0.0	12.5	75.0	44.4	45.0	6.3		53.9	
Where to sell	32.0	38.5	41.9	36.6	6.7	0.0	12.5	25.0	11.1	5.0	0.0		15.4	
What price to accept	62.7	66.7	54.8	68.3	13.3	8.3	25.0	100.0	33.5	40.0	31.3		46.2	
Whether price received was acceptable	62.7	74.4	67.7	65.9	26.7	8.3	37.5	75.0	55.3	45.0	37.5		53.9	
Whether to sell all at one time or to split it up	42.7	41.0	35.5	43.9	0.0	0.0	0.0	25.0	33.3	20.0	12.5		46.2	
To increase production	32.0	38.5	41.9	34.2	13.3	0.0	0.0	50.0	33.3	30.0	12.5		23.1	
To continue production at present rate	38.7	35.9	32.3	43.9	6.7	0.0	12.5	50.0	44.4	25.0	31.3		38.5	
To discontinue production	14.7	18.0	19.4	26.8	6.7	0.0	12.5	50.0	22.2	25.0	18.8		7.7	
Types of feeder stock to purchase	16.0	25.6	41.9	34.2	0.0	0.0	0.0	0.0	0.0	5.0	0.0		0.0	
Length of feeding time	32.0	28.5	45.2	43.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Market weights to shoot for	57.3	56.4	61.3	61.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Personal knowledge of markets and market trends	84.0	76.9	77.4	90.2	60.0	25.0	62.5	100.0	77.8	65.0	75.0		69.2	
Informed about current market information since the topic frequently comes up in discussion with friends and neighbors	90.7	82.1	80.7	95.1	46.7	33.3	75.0	100.0	88.9	85.0	68.8		76.9	

...to keep informed about current market information since the topic frequently comes up in discussions with friends and neighbors

...other (specify)...."

The responses (table 22) show that radio farm market reports were used to a much greater extent in deciding *when* to sell hogs and cattle than dairy products, eggs, grain, corn and beans. Approximately 70% of those who listed hogs or cattle as their major source or second largest source of farm income said radio farm market reports helped them decide *when* to sell. By contrast, the percentages were in the 40's for those whose largest or second largest source of income was from crops; the percentages were less than 15 for farmers whose most important or second most important source of farm product income was eggs or dairy products.

Well over half of the hog and cattle farmers said radio market reports help them decide *what price to accept, whether the price received is acceptable and what market weights to shoot for*. From 32 to

42% of these farmers said radio farm market reports help them decide *where* to sell their commodities; less than half of them said such reports help them in other decisions considered in the study.

More than half the farmers whose major or second most important source of income was grain or beans reported they use radio market reports to decide *whether the price received is acceptable*. Half or less than half of these grain and bean farmers said they use radio market reports in making other decisions.

Much less than half of those farmers whose most important source or second most important source of income was milk, eggs or corn said they use radio market reports in making any of the various decisions covered in the study.

Regardless of the source of income, however, a high proportion of farmers reported that radio market reports help them develop personal knowledge of markets and market trends—and help them keep informed about the current market situation, a topic that frequently comes up in discussions with friends and neighbors.

## APPENDIX A

### FARMERS' ACTUAL RADIO-LISTENING PATTERNS

The data shown in table A-1 were obtained from an analysis of the radio-listening charts (diaries). This, then, should represent the *actual* radio-listening patterns of the farmer sample members at the time of the study. They had been instructed to record their listening patterns as they occurred. This information should help in answering the *proposed* question number four which is: "At what time(s) of the day do farmers actually listen to radio?"

A brief explanation of the table is included here to facilitate its interpretation.

a) The "time of day" column includes a time schedule beginning at 5:00 a.m. and continuing throughout the morning, day and night until 1:00 a.m. by 15-minute periods.

b) Each of the succeeding seven major columns represents a day of the week, the first of these being Monday and the seventh Sunday. In each of these

"day of week" columns, is shown the number and percentages of farmers who listened to radio for each of the 15-minute segments. These figures are based on the maximum number of 42 farmers who recorded listening patterns on a given day of the week.

c) Shown in the "average daily" column located near the right margin of the table is the average number of daily listeners for each of the 15-minute segments, and the percentages these numbers are of the maximum daily number of 42.

d) The numbers in the "rank order" column signify the 15-minute segments during which the largest number of farmers actually listened to radio. The number "1" refers to the largest group, 43.8 percent, "2" is for the next largest, and so forth. There was a tie for second and third place; both are indicated with a 2.

In general, the times during the day when farmers listened most to radio were during the noon hour, early morning between 6:00 and 8:00 and to some degree, the evening around 6:00.

**Table A-1. Actual radio-listening patterns of all 147 farmer sample members for a 2-day time period March-April 1961 (Daily n = 42).**

Time of day	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		Av. Daily		Rank order
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
5:00- 5:15 a.m.	3	7.1	0		0		1	2.4	2	4.8	0		1	2.4	1.0	2.4	
5:15- 5:30	6	14.3	0		1	2.4	3	7.1	3	7.1	0		1	2.4	2.0	4.8	
5:30- 5:45	8	19.0	1	2.4	1	2.4	3	7.1	7	16.7	2	4.8	3	7.1	3.6	8.6	
5:45- 6:00	5	11.9	4	9.5	3	7.1	4	9.5	8	19.0	2	4.8	4	9.5	4.3	10.2	
6:00- 6:15	6	14.3	8	19.0	6	14.3	12	28.6	13	31.0	8	19.0	5	11.9	8.3	20.0	15
6:15- 6:30	7	16.7	10	23.8	11	26.2	16	38.1	16	38.1	13	31.0	7	19.0	11.4	27.1	9
6:30- 6:45	9	21.4	13	31.0	12	28.6	17	40.5	18	42.9	21	50.0	7	16.7	13.9	33.1	8
6:45- 7:00	9	21.4	15	35.7	14	33.3	16	38.1	21	50.0	20	47.6	10	23.8	15.0	35.7	6
7:00- 7:15	14	33.3	16	38.1	16	38.1	20	47.6	26	61.9	25	59.5	11	26.2	18.3	43.6	2*
7:15- 7:30	19	45.2	16	38.1	20	47.6	18	42.9	22	52.4	22	52.4	11	26.2	18.3	43.6	2*
7:30- 7:45	16	38.1	15	35.7	18	42.9	15	35.7	18	42.9	18	42.9	8	19.0	15.4	36.7	5
7:45- 8:00	11	26.2	11	26.2	14	33.3	12	28.6	12	28.6	13	31.0	5	11.9	11.1	26.4	10
8:00- 8:15	11	26.2	8	19.0	8	19.0	9	21.4	10	23.8	9	21.4	9	21.4	9.1	21.7	14
8:15- 8:30	4	9.5	6	14.3	7	16.7	3	7.1	7	16.7	9	21.4	10	23.8	6.6	15.7	
8:30- 8:45	0		6	14.3	3	7.1	2	4.8	8	19.0	4	9.5	6	14.3	4.1	9.8	
8:45- 9:00	0		5	11.9	2	4.8	2	4.8	7	16.7	0		6	14.3	3.1	7.4	
9:00- 9:15	0		3	7.1	3	7.1	3	7.1	3	7.1	0		5	11.9	2.4	5.7	
9:15- 9:30	0		2	4.8	3	7.1	2	4.8	3	7.1	1	2.4	5	11.9	2.3	5.5	
9:30- 9:45	1	2.4	3	7.1	2	4.8	3	7.1	2	4.8	1	2.4	3	7.1	2.1	5.0	
9:45-10:00	1	2.4	3	7.1	2	4.8	2	4.8	3	7.1	2	4.8	1	2.4	2.0	4.8	
10:00-10:15	1	2.4	2	4.8	2	4.8	5	11.9	2	4.8	1	2.4	4	9.5	2.4	5.7	
10:15-10:30	0		2	4.8	2	4.8	1	2.4	0		1	2.4	2	4.8	1.1	2.6	
10:30-10:45	0		2	4.8	2	4.8	0		0		2	4.8	3	7.1	1.3	3.1	
10:45-11:00	0		2	4.8	2	4.8	0		0		1	2.4	4	9.5	1.3	3.1	
11:00-11:15	0		3	7.1	2	4.8	1	2.4	1	2.4	2	4.8	6	14.3	2.1	5.0	
11:15-11:30	1	2.4	3	7.1	3	7.1	2	4.8	2	4.8	2	4.8	3	7.1	2.3	5.5	
11:30-11:45	1	2.4	5	11.9	3	7.1	6	14.3	5	11.9	1	2.4	3	7.1	3.4	8.1	
11:45-12:00	6	14.3	9	21.4	9	21.4	9	21.4	5	11.9	6	14.3	3	7.1	6.7	16.0	
12:00-12:15 p.m.	18	41.9	21	50.0	21	50.0	18	42.9	18	42.9	16	38.1	3	7.1	16.4	39.0	4
12:15-12:30	19	45.2	21	50.0	20	47.6	18	42.9	21	50.0	20	47.6	10	23.8	18.4	43.8	1
12:30-12:45	17	40.5	17	40.5	15	35.7	13	31.0	17	40.5	14	33.3	8	19.0	14.4	34.3	7
12:45- 1:00	11	26.2	11	26.2	9	21.4	11	26.2	13	31.0	10	23.8	6	14.3	10.1	24.0	11
1:00- 1:15	4	9.5	2	4.8	2	4.8	2	4.8	0		1	2.4	6	14.3	2.4	5.8	
1:15- 1:30	2	4.8	4	9.5	4	9.5	2	4.8	0		1	2.4	5	11.9	2.6	6.2	
1:30- 1:45	2	4.8	3	7.1	3	7.1	0		0		0		3	7.1	1.6	3.8	

Table A-1 (continued).

Time of day	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		Av. Daily		Rank order
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
1:45- 2:00	1	2.4	3	7.1	3	7.1	1	2.4	0		0		2	4.8	1.4	3.3	
2:00- 2:15	0		5	11.9	3	7.1	1	2.4	0		0		2	4.8	1.6	3.8	
2:15- 2:30	0		3	7.1	2	4.8	0		0		0		2	4.8	1.0	2.4	
2:30- 2:45	0		2	4.8	3	7.1	0		1	2.4	0		1	2.4	1.0	2.4	
2:45- 3:00	0		4	9.5	2	4.8	1	2.4	1	2.4	0		1	2.4	1.3	3.1	
3:00- 3:15	0		4	9.5	1	2.4	0		1	2.4	0		1	2.4	1.0	2.4	
3:15- 3:30	0		3	7.1	2	4.8	0		1	2.4	0		1	2.4	1.0	2.4	
3:30- 3:45	1	2.4	4	9.5	2	4.8	0		1	2.4	0		1	2.4	1.3	3.1	
3:45- 4:00	2	4.8	5	11.9	3	7.1	0		1	2.4	1	2.4	2	4.8	2.0	4.8	
4:00- 4:15	3	7.1	3	7.1	2	4.8	0		2	4.8	1	2.4	2	4.8	1.9	4.5	
4:15- 4:30	3	7.1	4	9.5	2	4.8	0		2	4.8	1	2.4	2	4.8	2.0	4.8	
4:30- 4:45	4	9.5	5	11.9	1	2.4	0		2	4.8	0		2	4.8	2.0	4.8	
4:45- 5:00	4	9.5	7	16.7	1	2.4	1	2.4	2	4.8	1	2.4	3	7.1	2.7	6.4	
5:00- 5:15	5	11.9	6	14.3	3	7.1	4	9.5	4	9.5	1	2.4	2	4.8	3.6	8.6	
5:15- 5:30	6	14.3	4	9.5	2	4.8	6	14.3	5	11.9	1	2.4	2	4.8	3.7	8.8	
5:30- 5:45	6	14.3	8	19.0	3	7.1	7	16.7	6	14.3	3	7.1	4	9.5	5.3	12.6	
5:45- 6:00	4	9.5	11	26.2	5	11.9	10	23.8	7	16.7	3	7.1	4	9.5	6.3	15.0	
6:00- 6:15	5	11.9	11	26.2	10	23.8	10	23.8	15	35.7	10	23.8	5	11.9	9.4	22.3	13
6:15- 6:30	9	21.4	10	23.8	11	26.2	11	26.2	14	33.3	11	26.2	4	9.5	10.0	23.8	12
6:30- 6:45	4	9.5	7	16.7	5	11.9	9	21.4	9	21.4	4	9.5	3	7.1	5.9	14.0	
6:45- 7:00	2	4.8	3	7.1	3	7.1	7	16.7	7	16.7	6	14.3	2	2.4	4.3	10.2	
7:00- 7:15	5	11.9	2	4.8	2	4.8	5	11.9	9	21.4	6	14.3	3	7.1	4.6	11.0	
7:15- 7:30	5	11.9	3	7.1	2	4.8	5	11.9	5	11.9	4	9.5	3	7.1	3.9	9.3	
7:30- 7:45	3	7.1	2	4.8	1	2.4	3	7.1	5	11.9	3	7.1	2	4.8	2.7	6.4	
7:45- 8:00	3	7.1	2	4.8	2	4.8	2	4.8	5	11.9	2	4.8	2	4.8	2.6	6.2	
8:00- 8:15	2	4.8	1	2.4	0		2	4.8	2	4.8	0		1	2.4	1.1	2.6	
8:15- 8:30	2	4.8	1	2.4	0		0		2	4.8	0		1	2.4	0.9	2.1	
8:30- 8:45	0		0		0		0		1	2.4	0		0		0.1	0.2	
8:45- 9:00	0		0		0		0		1	2.4	0		0		0.1	0.2	
9:00- 9:15	0		1	2.4	2	4.8	0		1	2.4	0		1	2.4	0.7	1.7	
9:15- 9:30	0		0		2	4.8	0		1	2.4	1	2.4	1	2.4	0.7	1.7	
9:30- 9:45	0		0		2	4.8	0		1	2.4	1	2.4	1	2.4	0.7	1.7	
9:45-10:00	0		0		2	4.8	0		0		1	2.4	1	2.4	0.6	1.4	
10:00-10:15	1	2.4	0		3	7.1	0		1	2.4	1	2.4	1	2.4	1.0	2.4	
10:15-10:30	1	2.4	0		2	4.8	0		1	2.4	1	2.4	1	2.4	0.9	2.1	
10:30-10:45	0		0		1	2.4	0		0		0		0		0.1	0.2	
10:45-11:00	0		0		1	2.4	0		0		0		0		0.1	0.2	
11:00- 1:00	0		0		0		0		0		0		0		0.0	0.0	

\* Indicates a tie.

## APPENDIX B

### ASPECTS OF FARM MARKET REPORTS

With personnel from Radio Station WOI, the researchers discussed the variety of component parts in the several market reports broadcast by WOI-AM during the period covered by this study. On the basis of a listing provided by WOI personnel and actual listening by a member of the rural sociology research team, the following list of aspects of farm market reports was compiled. This list was used during the interviews as indicated in the text of this bulletin.

#### Review of Previous Day's Market

1. Livestock at Chicago
2. Grain produce market at Chicago
3. Terminal and interior livestock markets

#### Hogs

4. Hogs, opening at Chicago
5. Hogs, opening at Chicago, St. Louis and Indianapolis
6. Hogs, opening at interior Iowa and southern Minnesota packing plants
7. Hog trade at interior Iowa and southern Minnesota packing plants
8. Hogs, current reports at midwestern terminal markets
9. Hogs, midmorning interior Iowa and southern Minnesota
10. Hogs, midwestern terminal markets (noon summary)
11. Hogs, interior Iowa and southern Minnesota (noon summary)
12. Hogs, closing midwestern terminal markets
13. Hogs, closing interior Iowa and southern Minnesota markets

#### Cattle

14. Cattle, current reports at midwestern terminal markets
15. Cattle, midwestern round-up at terminal markets
16. Cattle, noon summary of midwestern terminal markets
17. Cattle, closing midwestern terminal markets (available after 11:30)

#### Sheep

18. Sheep, current reports at midwestern terminal markets

19. Sheep, midmorning interior Iowa and southern Minnesota
20. Sheep, midwestern round-up at terminal markets
21. Sheep, noon summary midwestern terminal markets
22. Sheep, summary interior Iowa and southern Minnesota
23. Sheep, closing midwestern terminal markets
24. Sheep, closing interior Iowa and southern Minnesota markets

#### Livestock

25. Livestock receipts at 10 midwestern terminal markets
26. Livestock supplies at 12 public markets with comparisons
27. Livestock estimates at 7 midwestern markets expected the next day
28. Livestock advanced estimates for morning (noon)

#### Dressed Meat

29. Dressed meat at New York
30. Dressed meat at Chicago

#### Poultry

31. Live poultry at Chicago
32. Live poultry market in Iowa
33. Dressed poultry at Chicago
34. Dressed poultry at New York
35. Broiler and fryer market - Arkansas and North Georgia

#### Eggs

36. Eggs, futures opening at Chicago
37. Eggs, futures at Chicago
38. Eggs, cash market at Chicago and New York
39. Eggs, cash market summary at Chicago and New York
40. Eggs, market in Iowa
41. Eggs, futures closing at Chicago

#### Butter

42. Butter, cash market at Chicago and New York
43. Butter, cash market summary at Chicago and New York
44. Butter, Iowa and Federal

#### Grain

45. Grain futures opening at Chicago

- 46. Grain futures
- 47. Grain futures closing at Chicago (available after 1:16)
- 48. Cash grain sales at Chicago
- 49. High and lows on grain (available after 1:17)
- 50. Volume of future trading for previous day

**Soybean Oil**

- 51. Soybean oil futures opening at Chicago
- 52. Soybean oil futures
- 53. Soybean oil current quotations
- 54. Soybean oil futures closing at Chicago

**Soybean Meal**

- 55. Soybean meal futures, opening at Chicago
- 56. Soybean meal futures
- 57. Soybean meal current quotations
- 58. Soybean meal futures, closing at Chicago

**Flax**

- 59. Flax, closing at Minneapolis

**Cotton**

- 60. Cotton futures, opening at New York
- 61. Cotton futures, closing at New York

**Lard**

- 62. Lard futures, opening at Chicago
- 63. Lard futures
- 64. Lard futures, closing at Chicago

**Stocks**

- 65. Dow-Jones, 11:00 a.m. industrial stock averages
- 66. Stock market at New York
- 67. Dow-Jones, noon stock averages
- 68. Dow-Jones, 1 p.m. stock averages
- 69. Dow-Jones, 2 p.m. stock averages
- 70. Stock market closing at New York